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## **Pedagogical conditions for the successful teaching of mathematics**

To form the success of student learning in the process of studying mathematics, the right pedagogical conditions are needed. The creation of such conditions allows students to develop the ability to generalize mathematical material, to identify the main thing, to identify the common in different examples and tasks, the ability to shorten the process of reasoning, think in convoluted structures, the ability to logical thinking, the desire for simplicity, clarity, economy and rationality of decisions, which is the basis for the development of mathematical abilities.

Professionally significant are such qualities of a teacher's personality that, meeting the requirements of pedagogical activity, are a necessary condition for the effectiveness of this activity. These qualities can be considered:

- pedagogical goal-setting - the quality of the teacher's personality, which allows setting pedagogical goals and achieving, rebuilding them depending on changes in the conditions of the pedagogical situation;

- pedagogical thinking is such a quality of the teacher's personality that allows you to analyze, generalize and transform the pedagogical situation, make a decision on the choice and use of the means of pedagogical influence that are appropriate for this situation, creatively create new means of pedagogical influence on students;

- pedagogical observation - the quality of the teacher's personality, allowing him to penetrate into the essence of the underlying processes of the pedagogical situation by external, insignificant signs;

- pedagogical intuition - such a quality of the teacher's personality that provides instant adoption of the correct pedagogical decision in difficult situations;

- pedagogical reflection - the quality of the teacher, allowing him to recognize his condition, compare his tasks, his actions and the results achieved in real pedagogical

situations with the aim of monitoring, evaluating, correcting and improving his pedagogical activity and pedagogical communication.

The composition of each of these qualities includes a certain set of professionally significant personality traits: accuracy, nobility, courtesy, endurance and self-control, efficiency, goodwill, good faith, criticality, logic, love for children, curiosity, observation, perseverance, resourcefulness, charm, sociability, commitment, organization, responsibility, pedagogical imagination, the need for the transfer of knowledge, truthfulness, integrity, determination, distribution of attention, develop melting speech, self-criticism, independence, modesty, quick wit, ability to see the world through the eyes of a child, justice, tact, exactingness for oneself and students, hard work, creative imagination, self-confidence, ability to highlight the main thing, determination, sense of humor, self-esteem, sensitivity, aesthetic taste, erudition, empathy, fantasy and fiction.

The methodology of teaching mathematics studies special mathematical abilities and the conditions for their development in the learning process. Their specificity is that the general mental abilities in this case are manifested in the activity, the subject of which is the quantitative and spatial relations, expressed in numerical and symbolic symbolism. This means that mathematical abilities are a manifestation of the general in the concrete. In this sense, they are both general and specific. Thus, the same factors influence their change as they change the general intellectual abilities.

Consequently, the mathematical abilities of primary schoolchildren are not an invariable quantity; many factors influence their development.

This requires the teacher to create optimal conditions for the successful development of mathematical abilities.

In the literature it is noted that it is advisable to attribute the following to the number of such conditions:

- The content of the material studied and the features of teaching methods have a significant impact on the development of students, the formation of their abilities. Therefore, it is necessary to use methods and techniques that stimulate the cognitive

activity of students. This is due to the psychological regularity of the process of intellectual development of students. “The development of a child occurs only in the process of activity; the more active the activity, the more successful the development” (L. S. Vygotsky). Consequently, abilities cannot develop outside the active activity of the student himself and will not be developed without his own efforts. This means that the most important condition for the development of the abilities of primary schoolchildren is their involvement in active search. Consider several such techniques.

1. Creating a situation of free choice.

In the existing teaching methodology, schoolchildren are often deprived of free choice, the goal of the activity is imposed on them from the outside, their actions are strictly regulated by the teacher, the teacher takes on the whole goal-setting function. This fetters the initiative of students. Therefore, recently they began to talk about creating a “free choice” situation in education, that is, a situation where students themselves determine the goal of the activity, they accept the educational task as if freely chosen by them, they master the goal-setting skill; together with the teacher, they plan to study this topic, highlight its private questions, the sequence of their consideration, etc. But such "freedom of choice" is only apparent, in reality it is controlled by the teacher. “Freedom of choice,” that is, the desire of the children and the goals of instruction must coincide.

“Free choice” may consist, for example, in the fact that the children themselves choose the option of control work from several proposed ones, homework is done with the right to choose, etc. Sometimes the training material allows you to outline a perspective in its study, then each specific topic in its composition becomes "freely chosen."

2. Non-standard methods in the lessons increase the effectiveness of training, suggest a creative approach on the part of both the teacher and the student. This is a form of active learning.

In my work I use a variety of non-standard lessons: a lesson - a conference, a lesson - a competition, a lesson - a game, a lesson in creativity, a lesson - a test, a lesson - a trip, a lesson - a simulator, a lesson - a lecture, a lesson - an auction, a lesson - a creative report.

The purpose of non-standard teaching methods is simple - to revive boring, to inspire creativity, to interest students, since interest is a catalyst for all educational activities. Non-standard lessons are always holidays, when all students are active and the class becomes a creative laboratory. These lessons include all the variety of forms and methods, especially such as problem-based learning, search and research, interdisciplinary and intrasubject communications, reference signals, notes, etc. The tension characteristic of ordinary lessons is relieved, thinking is revived, and interest in the subject is increased.

#### Literature

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